

**IN THE DRAWINGS:**

The attached sheets of drawings include changes to FIGS. 5A - 5J. These sheets replace the original sheets including FIGS. 5A - 5J.

Specifically, FIG. 5A has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 102, second line of box 104, second line of box 106 and third line of box 108; FIG. 5B has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the second line of box 204, second line of box 206, and third line of box 208; FIG. 5C has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 302, second line of box 304, second line of box 306, second line of box 308 and third line of box 312; FIG. 5D has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 402, second line of box 404, first line of box 408, and third line of box 410; FIG. 5E has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 502, second line of box 504, first and fifth lines of box 508, and third line of box 510; FIG. 5F has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 602, second line of box 604, second line of box 606, and fourth line of box 608; FIG. 5G has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 702, first and second lines of box 704, second line of box 706, and fourth line of box 708; FIG. 5H has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 802, second line of box 804, third line of box 806, second line of box 808, and fourth line of box 812; FIG. 5I has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 902, second line of box 904, first line of box 908, and fourth line of box 910; and FIG. 5J has been revised to insert the word **--BASE--** after the word **--LAYER--** and before the reference numeral **--12'** on the first line of box 1002, second line of box 1004, first and fifth lines of box 1008, and fourth line of box 1010.

**REMARKS**

Claims 1 through 7 are currently pending in the application.

This amendment is in response to the Office Action of April 6, 2006.

**35 U.S.C. § 102(b) Anticipation Rejections**

**Anticipation Rejection Based on Berndlmaier et al. (U.S. Patent 5,059,553)**

Claims 1 through 7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Berndlmaier et al. (U.S. Patent 5,059,553).

Applicant asserts that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

*Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

After carefully considering the cited prior art, the rejections, and the Examiner's comments, Applicant has amended the claimed invention to clearly distinguish over the cited prior art.

Applicant asserts that the Berndlmaier et al. reference does not and cannot anticipate the claimed inventions of presently amended independent claims 1, 3, 4, 6, and 7 under 35 U.S.C. § 102 because the Berndlmaier et al. reference does not identically describe, either expressly or inherently, each and every element of the claimed inventions in as complete detail as contained in the claims. Applicant asserts that the Berndlmaier et al. reference does not identically describe the elements of the claimed inventions of presently amended independent claims 1, 3, 4, 6, and 7 calling for "depositing a layer of copper on the upper surface and the lower surface of the substrate". Applicant asserts that the Berndlmaier et al. reference contains no description whatsoever of such an element of the claimed invention. Therefore, presently amended independent claims 1, 3, 4, 6, and 7 are allowable as well as dependent claims 2 and 5 therefrom.

Anticipation Rejection Based on Seppala et al. (U.S. Patent 5,665,639)

Claims 1 through 7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Seppala et al. (U.S. Patent 5,665,639).

Applicant asserts that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

*Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

After carefully considering the cited prior art, the rejections, and the Examiner's comments, Applicant has amended the claimed invention to clearly distinguish over the cited prior art.

Applicant asserts that the Berndlmaier et al. reference does not and cannot anticipate the claimed inventions of presently amended independent claims 1, 3, 4, 6, and 7 under 35 U.S.C. § 102 because the Seppala et al. reference does not identically describe, either expressly or inherently, each and every element of the claimed inventions in as complete detail as contained in the claims. Applicant asserts that the Seppala et al. reference does not identically describe the elements of the claimed inventions of presently amended independent claims 1, 3, 4, 6, and 7 calling for "depositing a layer of copper on the upper surface and the lower surface of the substrate". Applicant asserts that the Seppala et al. reference contains no description whatsoever of such an element of the claimed invention. Therefore, presently amended independent claims 1, 3, 4, 6, and 7 are allowable as well as dependent claims 2 and 5 therefrom.

Anticipation Rejection Based on Volfson et al. (U.S. Patent 5,106,461)

Claims 1, 2, 4, and 5 were rejected under 35 U.S.C. § 102(b) as being anticipated by Volfson et al. (U.S. Patent 5,106,461).

After carefully considering the cited prior art, the rejections, and the Examiner's comments, Applicant has amended the claimed invention to clearly distinguish over the cited prior art.

Applicant asserts that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

*Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicant asserts that the Volkson et al. reference does not and cannot anticipate the claimed inventions of presently amended independent claims 1, 3, 4, 6, and 7 under 35 U.S.C. § 102 because the Volkson et al. reference does not identically describe, either expressly or inherently, each and every element of the claimed inventions in as complete detail as contained in the claims. Applicant asserts that the Volkson et al. reference does not identically describe the elements of the claimed inventions of presently amended independent claims 1, 3, 4, 6, and 7 calling for “depositing a layer of copper on the upper surface and the lower surface of the substrate”. Applicant asserts that the Volkson et al. reference contains no description whatsoever of such an element of the claimed invention. Therefore, presently amended independent claims 1, 3, 4, 6, and 7 are allowable as well as dependent claims 2 and 5 therefrom.

Applicant submits that claims 1 through 7 are clearly allowable over the cited prior art.

Applicant requests the allowance of claims 1 through 7 and the case passed for issue.

Respectfully submitted,



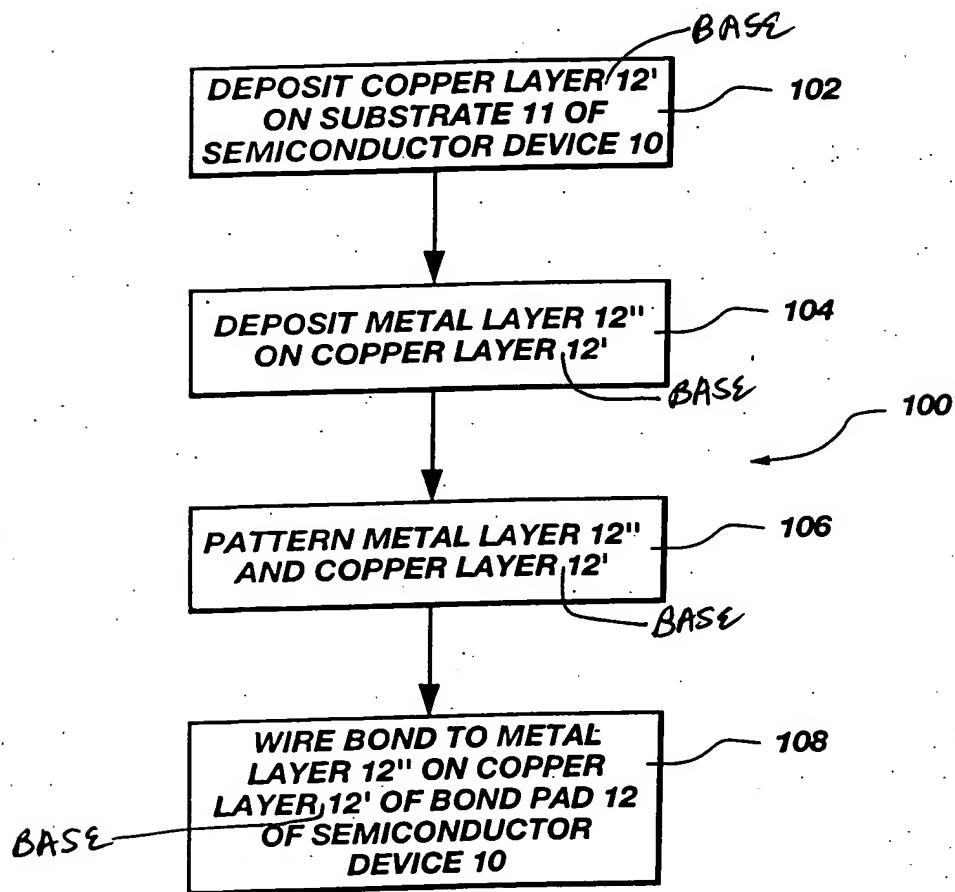
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Date: July 5, 2006  
JRD/csw:aw:lmh

Enclosures: Replacement Sheets  
Annotated Sheets Showing Changes

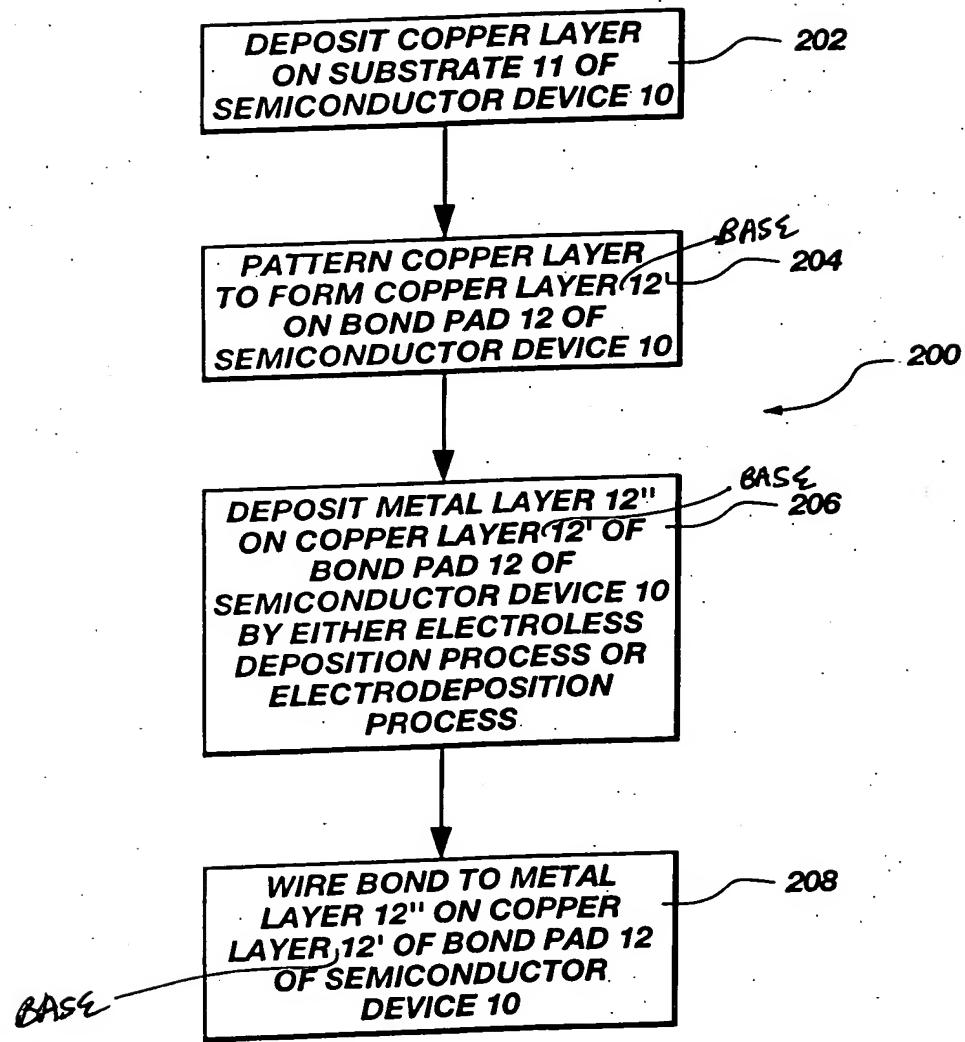
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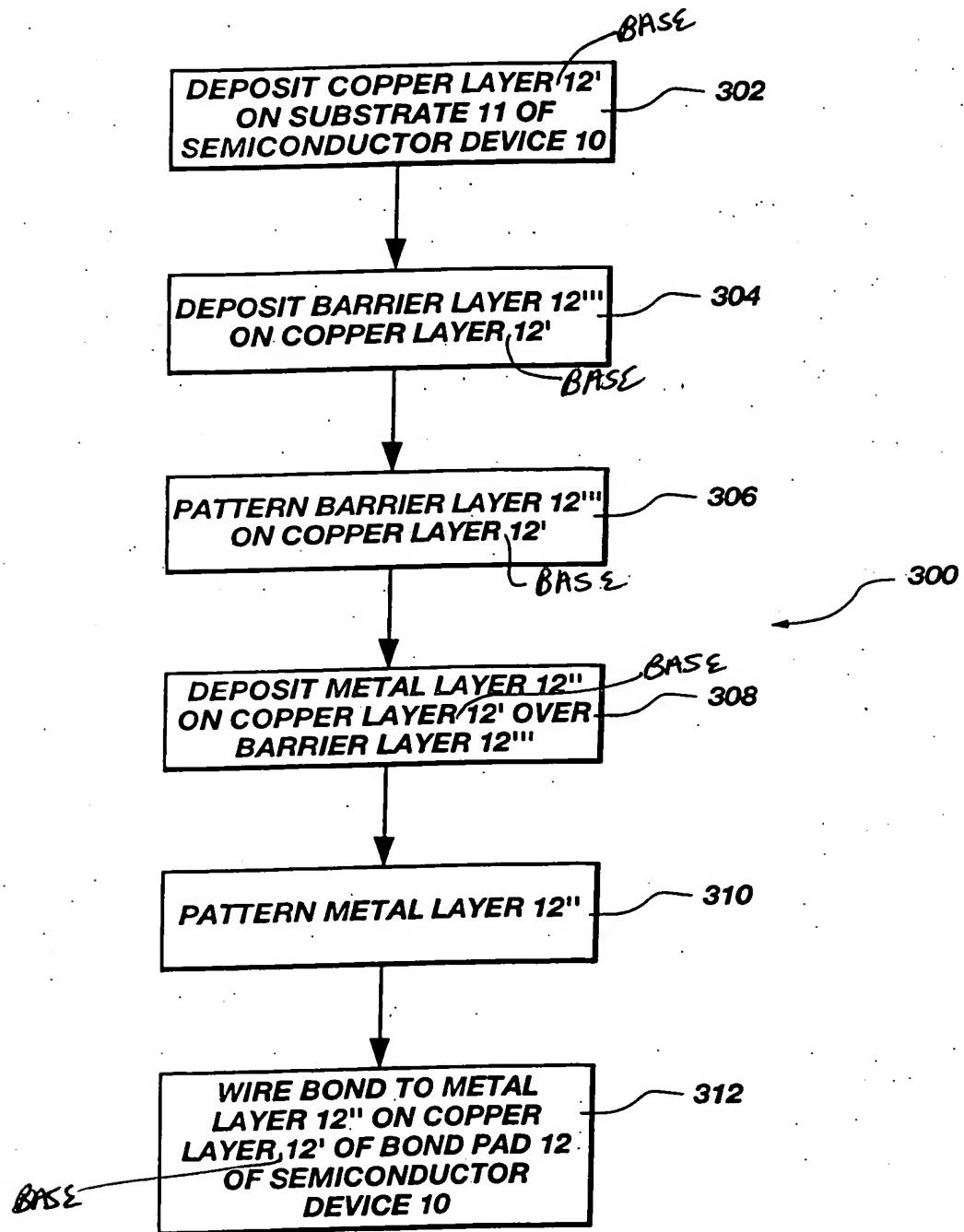
**Fig. 5A**

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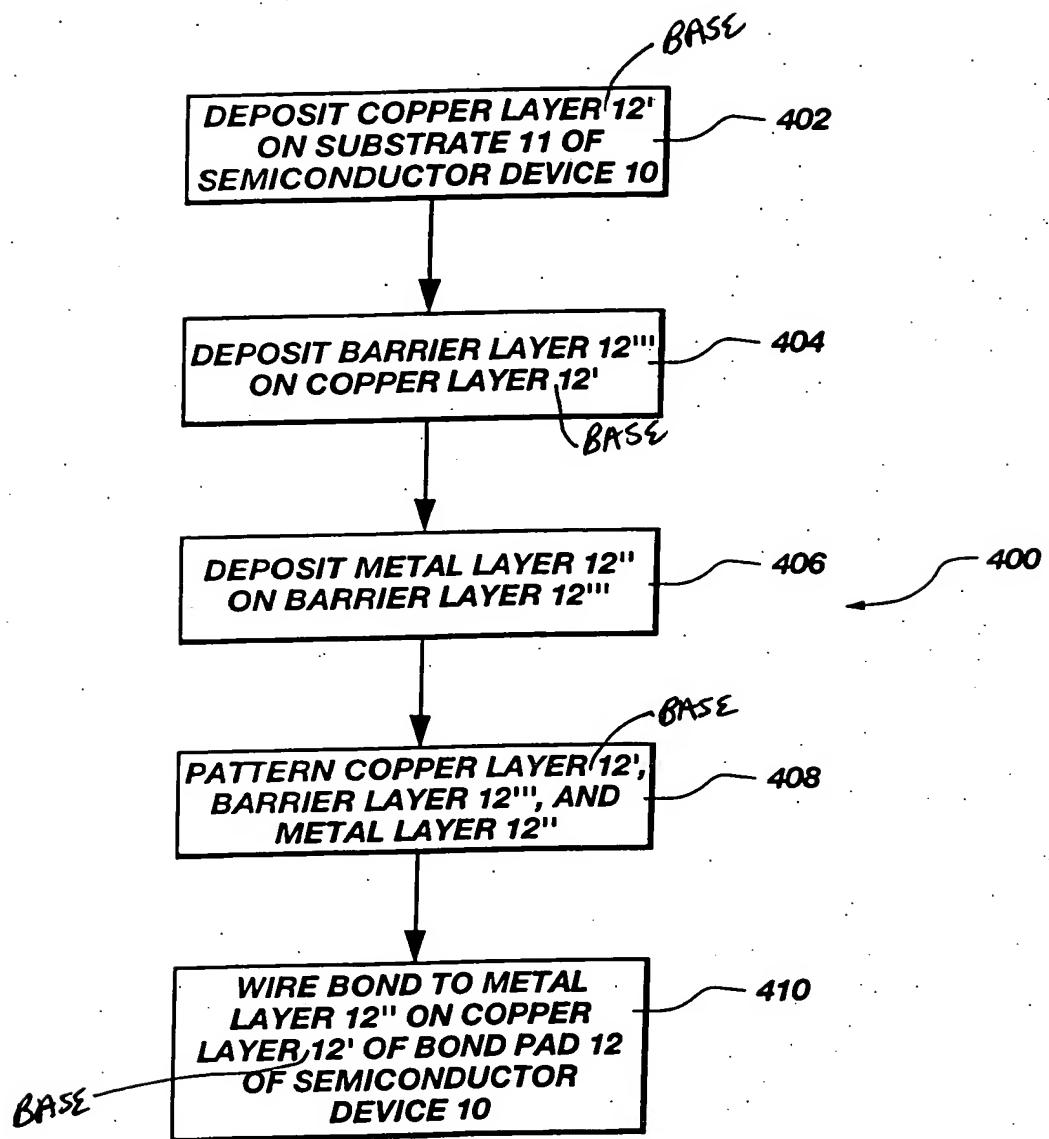
**Fig. 5B**

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**Fig. 5C**

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*Fig. 5D*

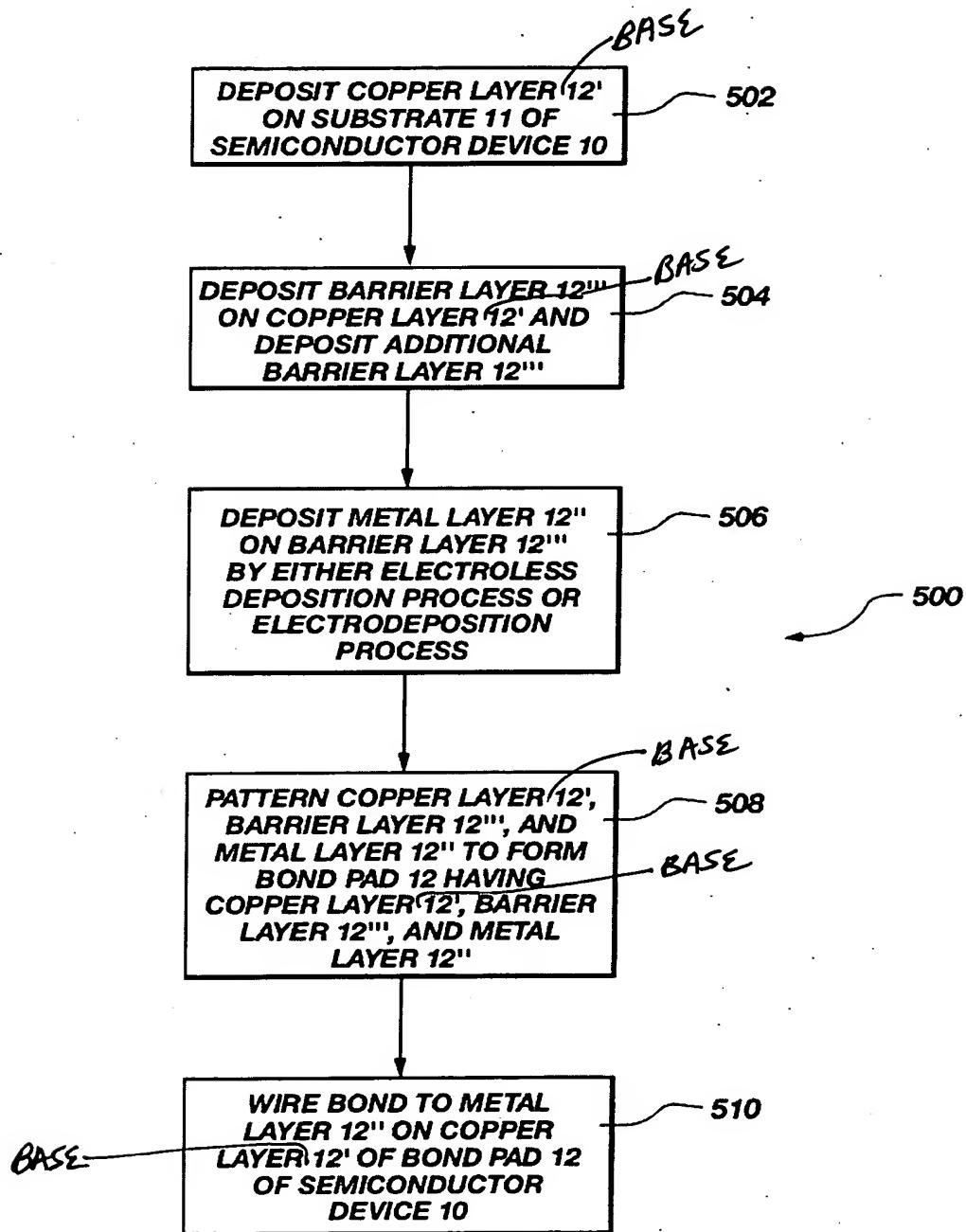
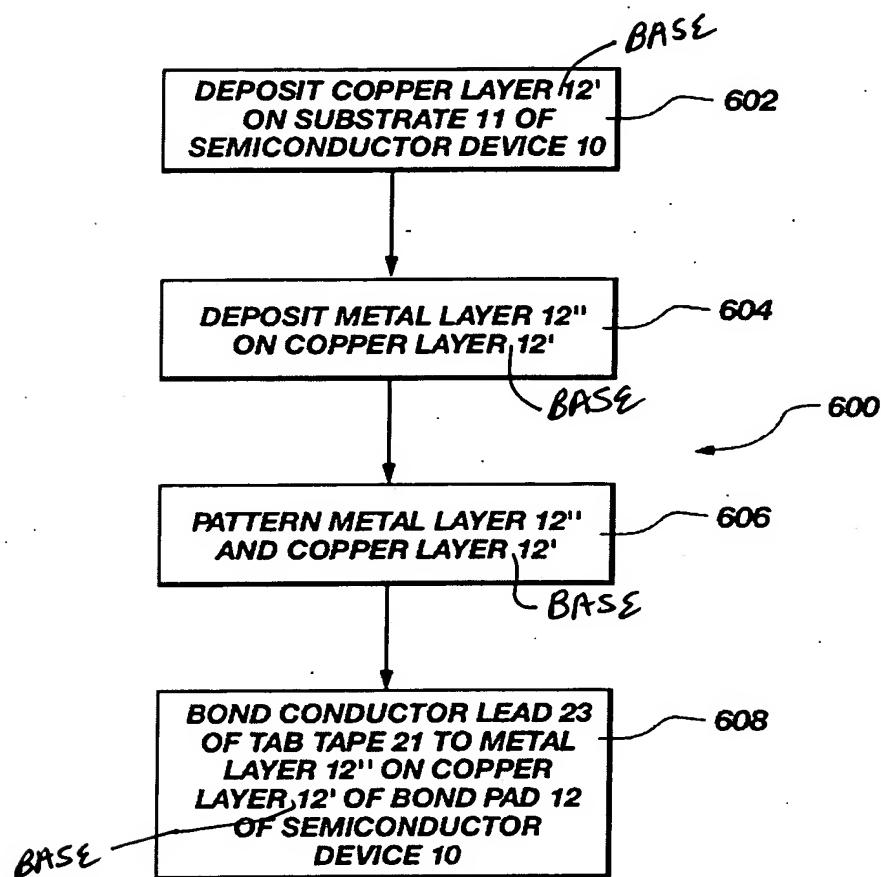
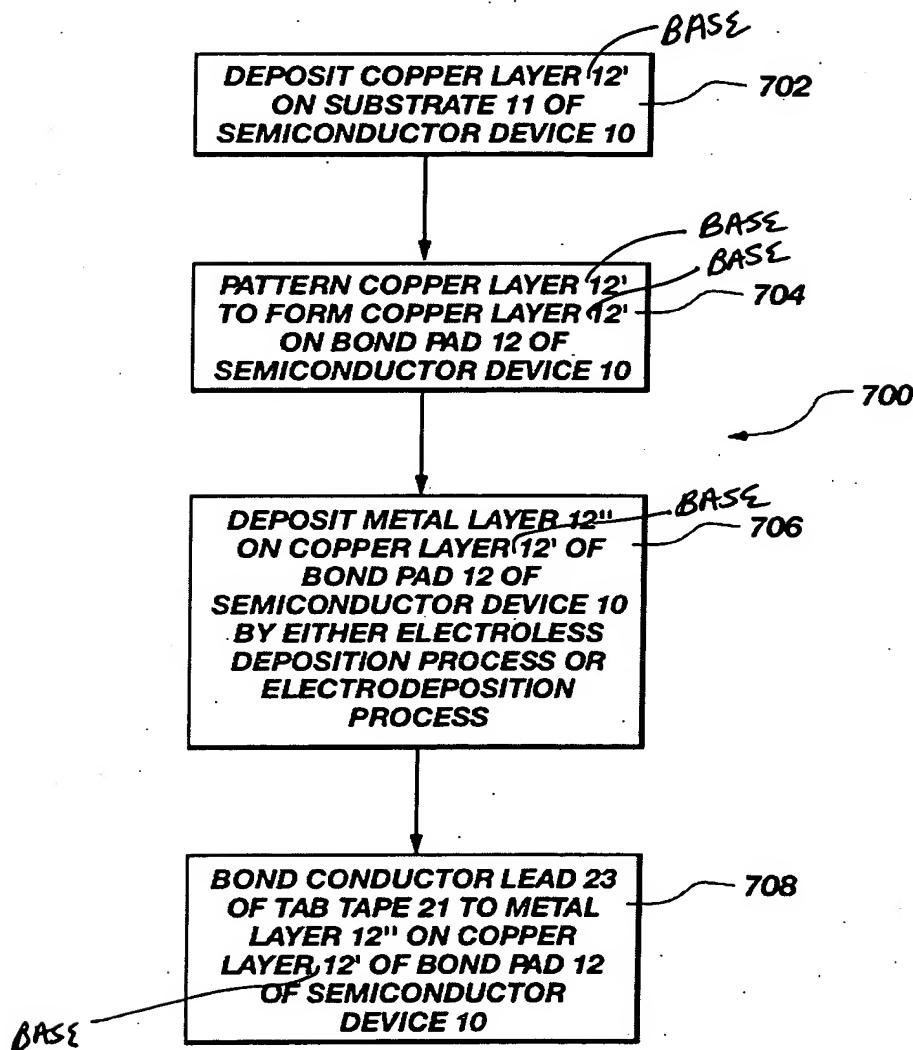


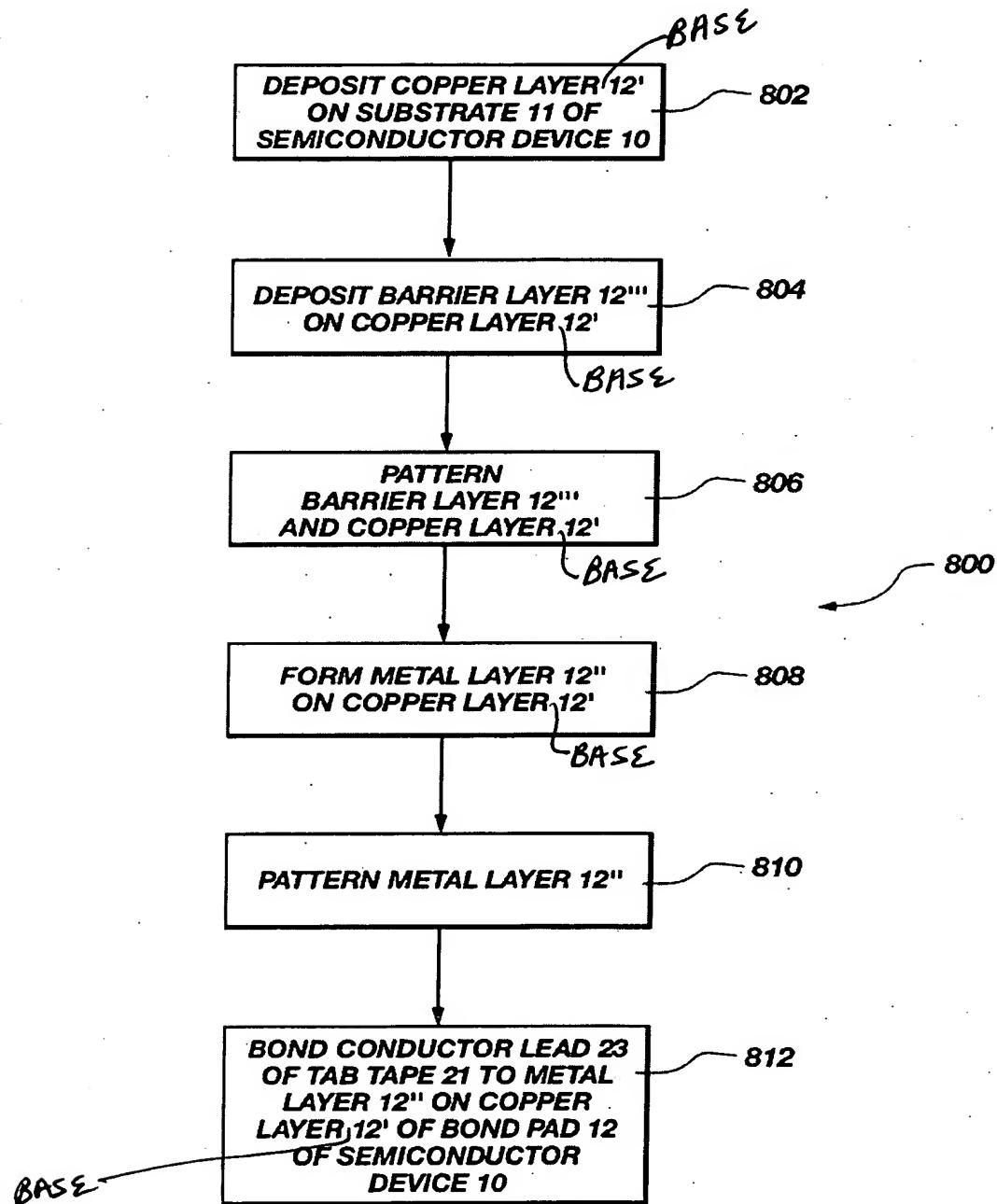
Fig. 5E



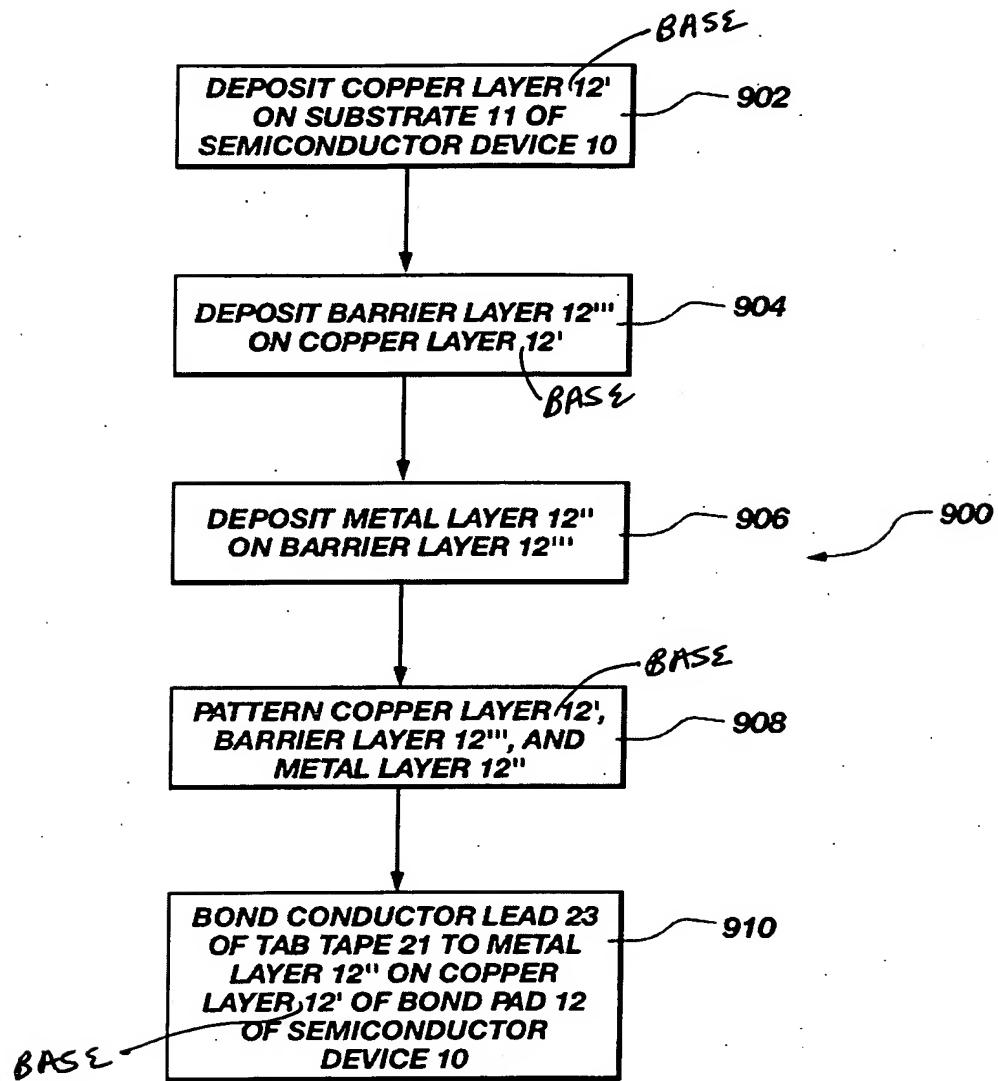
**Fig. 5F**



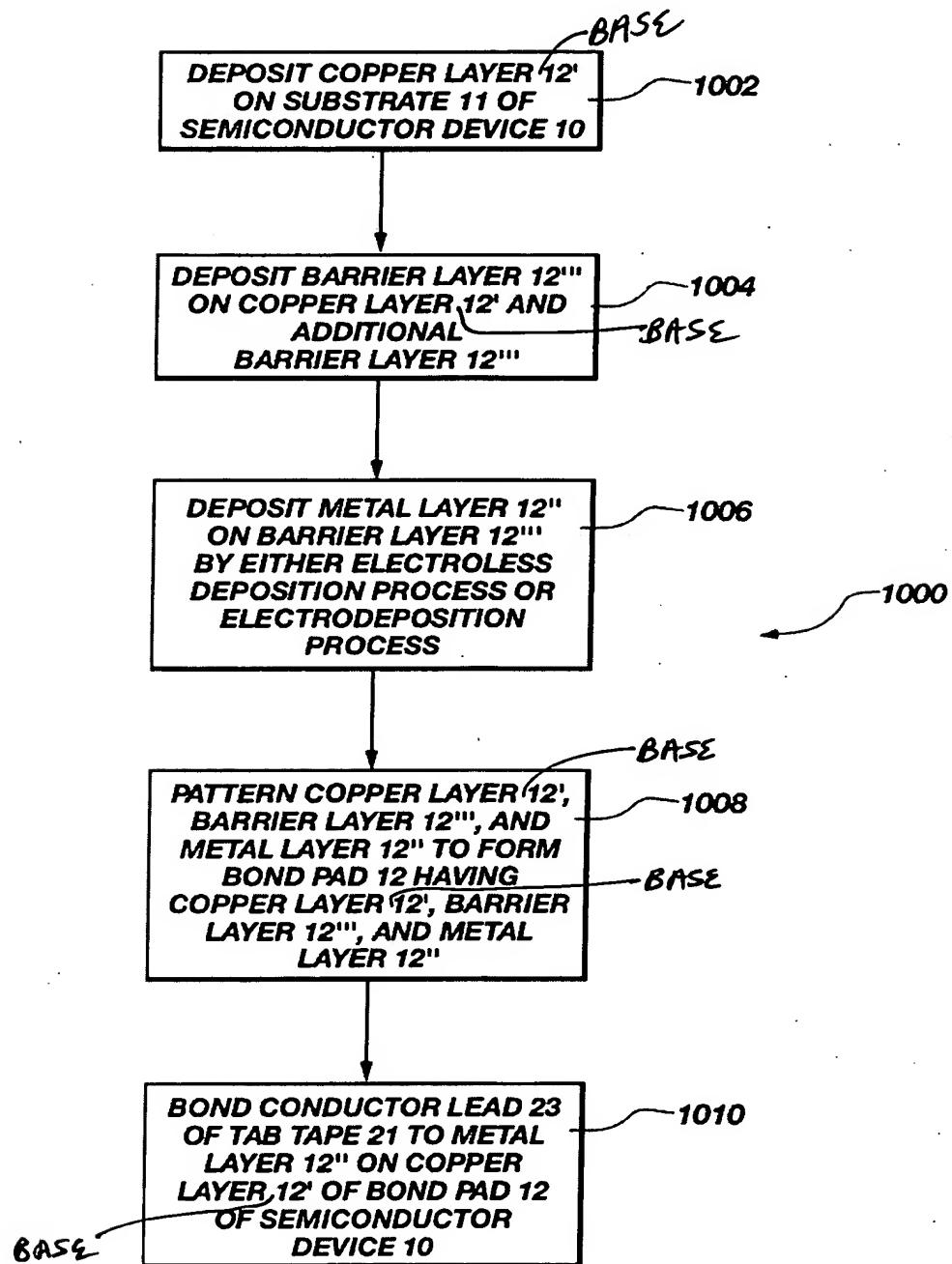
**Fig. 5G**



**Fig. 5H**



**Fig. 5I**



*Fig. 5J*